

1 OSHA R. MESERVE (SBN 204240)
2 PATRICK M. SOLURI (SBN 210036)
3 SOLURI MESERVE, A LAW CORPORATION
4 510 8th Street
5 Sacramento, California 95814
6 Telephone: (916) 455-7300
7 Facsimile: (916) 244-7300
8 Email: osha@semlawyers.com
9 patrick@semlawyers.com

10 Specially Appearing for Protestant Environmental Council of
11 Sacramento for Purposes of Presenting Part 2 Testimony

12 **BEFORE THE**
13 **CALIFORNIA STATE WATER RESOURCES CONTROL BOARD**

14 HEARING IN THE MATTER OF
15 CALIFORNIA DEPARTMENT OF WATER
16 RESOURCES AND UNITED STATES
17 BUREAU OF RECLAMATION
18 REQUEST FOR A CHANGE IN POINT OF
19 DIVERSION FOR CALIFORNIA WATER FIX

20 **TESTIMONY OF ROBERT BURNES -**
21 **REVISED**
22 **ENVIRONMENTAL COUNCIL OF**
23 **SACRAMENTO**

I. PROFESSIONAL BACKGROUND AND APPROACH TO ANALYSIS

I am Robert Burness, representing both Friends of Stone Lakes National Wildlife Refuge (“Friends of Stone Lakes NWR”) and the Environmental Council of Sacramento. I wish to address you from the perspective of 40 year’s work to protect and conserve the wetlands, vernal pools and agricultural lands of Sacramento County. Graduating with a B.S. in Biological Sciences from UC Davis, I was the lead preparer, 1973–74, of the Cosumnes River Basin Resources Study by Jones and Stokes Associates and VTN for Sacramento County. I worked for almost 30 years with the Sacramento County Planning Department, among other things overseeing vernal pool studies, evaluating growth constraints, and developing open space and conservation policies for the 1993 County General Plan. For the last 10 years I have volunteered as Chair of the Friends of Stone Lakes NWR Conservation Committee and Co-Chair of Habitat 2020, the conservation arm of the Environmental Council of Sacramento. (See also ECOS-2, Statement of Qualifications). A primary focus of our efforts has been to foster the protection of natural and working habitats beyond the Sacramento urban area while confronting projects that significantly threaten those habitats. I also helped initiate and participated in working group meetings with the California Department of Water Resources (“DWR”) and its consultant, ICF International, in 2012–14 to help make improvements to the habitat protection measures of the Bay Delta Conservation Plan (“BDCP”), especially as they relate to threatened species in and around the Stone Lakes NWR.

II. IMPACTS FROM PETITIONED PROJECT WOULD BE CONTRARY TO THE PUBLIC INTEREST**A. Importance of Habitat Lands in South Sacramento County**

Over the last 30 years, the importance of South Sacramento County’s habitats has gained increasing recognition. These habitats include permanent and seasonal wetland, valley grassland (often with associated vernal pools), mixed riparian woodland (often with magnificent valley oaks), agricultural cropland, and to the east, blue oak woodland. ECOS-3 (2017 Draft South Sacramento Habitat Conservation Plan (“SSHCP”), Figure 3-38; see also SOSC-14 [SSHCP, Chapters 1, 3, & 7]), shows the habitat cover types in the western portion of

1 Sacramento County that would be most directly impacted by the Delta Tunnels project. Note
2 the significant acreage of grassland habitat, some of it with vernal pools, intermixed with mixed
3 riparian woodland and often adjacent to or surrounding permanent and seasonal wetlands.
4 Together these habitat cover types are depicted as green to dark green and blue on the map
5 and they form two axes, one along the Cosumnes River and the other in the Stone Lakes area
6 along Interstate 5. Between these two axes of mixed habitat types there remain large
7 acreages of cropland (light yellow on the map).

8 Add to this well intermixed habitat the wide floodplain in the lower reach of the mostly
9 undammed Cosumnes River and you have conditions for supporting a wide variety of species,
10 particularly waterfowl migrating along the Pacific Flyway. They not only have good roost
11 options, but nearby cropland and grassland, occasionally flushed with seasonal flooding,
12 provide vital foraging area. There exists also a unique opportunity to restore some floodplain
13 lands to approximate their original habitat value.

14 In addition, the California Department of Fish and Wildlife (“CDFW”) has identified the
15 area to the east of the proposed North Delta Intakes as part of an important wildlife corridor.
16 The California Essential Habitat Connectivity Project webpage states:

17 The California Department of Fish and Wildlife and the California Department of
18 Transportation (CalTrans) commissioned a team of consultants to produce a
19 statewide assessment of essential habitat connectivity by February of 2010,
20 using the best available science, data sets, spatial analyses and modeling
21 techniques.

20 The goal was to identify large remaining blocks of intact habitat or natural
21 landscape and model linkages between them that need to be maintained,
22 particularly as corridors for wildlife.

22 (Available at: <https://www.wildlife.ca.gov/Data/BIOS>.)

23 The connectivity map prepared by CDFW (ECOS-8) that resulted from this effort shows
24 that the Sacramento River is an important corridor for wildlife movement between some of
25 these “remaining blocks.” This corridor allows wildlife to move through areas constrained by
26 urbanization in Sacramento County. The substantial disruption to the continuity of this
27 important north south connection caused by the Delta Tunnels project would be substantial
28 from the removal of riparian habitat along the river for the intakes. As local wildlife attempts to

1 respond to the effects of climate change, the importance of this corridor will be amplified for
2 species seeking cooler northern climes. (See ECOS-8, Map of North Delta Essential
3 Connectivity Areas.)

4 The importance of these habitats in South Sacramento County has led to several
5 initiatives to protect and manage important resource lands to enhance wildlife values and
6 protect listed species. The Nature Conservancy initiated a project to protect the unique habitat
7 in the lower Cosumnes River with the purchase of 1,500 acres that led to the official creation of
8 the Cosumnes River Preserve in 1987. Since then Ducks Unlimited, the U.S. Bureau of Land
9 Management, CDFW, Sacramento County and DWR have joined as partners to protect over
10 50,000 acres of wildlife habitat and agricultural lands along the river. (See also ECOS-6
11 [SSHCP, Figure 7-4], which identifies preserve lands in the western part of the Cosumnes
12 River Preserve; see also SOSC-14.)

13 Yet years of agricultural and urban groundwater pumping have drawn down the aquifer
14 north of the Cosumnes River to the point where the river is no longer connected to the aquifer
15 beneath it and the Cosumnes dries up in late summer and early fall. Led by the Cosumnes
16 Coalition, efforts are underway to develop innovative projects to augment recharge, return
17 base flows to the river, and ultimately restore salmon spawning. (ECOS-4, Cosumnes River
18 Provides Model for Floodplain Restoration in California by Michelaina Johnson; see also
19 ECOS-9, SCRSD Recharge Project.)

20 The U.S. Fish and Wildlife Service established Stone Lakes NWR in 1994 to protect the
21 wetlands associated with Upper and Lower Stone Lakes and their surrounding habitat. The
22 U.S. Fish and Wildlife Service manages 6,500 acres of protected land within the refuge
23 boundary. This acreage is delineated in the central part of the connectivity map. (See
24 ECOS-8). Together, Stone Lakes and the Cosumnes River Preserve represent a significant
25 investment of public funds.

26 Finally, the South Sacramento Habitat Conservation Plan (“SSHCP”), 23 years in the
27 making, is nearing the final stages of approval. (See SOSC-14.) The SSHCP is divided into
28 eight preserve Planning Units (“PPU’s”), each of which focuses on protecting specific covered

1 species. PPU-6 extends westward from the eastern boundary of Galt to the Sacramento River
2 and encompasses the Delta Tunnels intakes, forebay, new transmission lines and tunnel route
3 southward to the Sacramento County line. The Greater Sandhill Crane and Swainson's Hawk
4 are a primary focus of protection efforts in PPU-6. The SSHCP calls for approximately 9,750
5 acres to be reserved in PPU-6. Successful implementation of this plan will complete a
6 longstanding goal of conservation advocates to secure sufficient wetlands, riparian forest and
7 upland foraging habitat to provide a vital refugium for listed species and migratory birds. That
8 this conservation project is hard up against the third most populated urban area in the state
9 would make this an all the more remarkable accomplishment.

10 **B. Concerns about the Delta Tunnels in the Context of Regional Conservation**

11 You will hear from others about the impacts that the Delta Tunnels would have on both
12 aquatic and terrestrial species. I would like to address two additional concerns that have
13 received much less attention during these proceedings: Aquifer impacts and truck traffic
14 impacts.

15 ***Groundwater Aquifer Impacts***

16 I have spent decades working to reduce negative environmental impacts of projects in
17 the ecologically critical Cosumnes watershed. These projects usually directly damage habitat
18 or encroach and fragment habitat and reduce its value. However, an equally destructive
19 impact on the Cosumnes and Stone Lakes NWR has been the consistent decline in the water
20 table due to groundwater mining in South Sacramento and Elk Grove for drinking and
21 agricultural water. The decline is so severe that you can see the cones of depression on
22 regional maps. (ECOS-7, Figure 3-1, Spring 2003 Groundwater Elevation Contours, from
23 Section 3 of the February 2005 Sacramento County Water Agency Zone 40 Water Supply
24 Master Plan [Excerpt of DWR-804].)

25 Assessments show how those cones are taking water out of the local streams and
26 rivers, making them lose surface water to the groundwater, instead of being recharged as they
27 were historically. The FEIR/S indicates that groundwater levels will drop no more than five feet
28 due to lower flows in the Sacramento River resulting from diversions of water into the tunnels.

1 (SWRCB-102, FEIR/S; see also SWRCB-108, p. 65.) These losses shrink our wetlands and
2 reduce flow for salmon on the Cosumnes. When the streams become disconnected from the
3 groundwater at a certain point the river does not run and the wetland plants and trees lose
4 their water. These same maps show that the Sacramento River could already be at risk, and
5 the Cosumnes is in peril. (ECOS-7.) That disconnection is not visible to the naked eye: the
6 plants just get stressed and during droughts, when the water table gets even lower, they
7 decline and eventually die. That cutoff seems to be around 20 feet below the surface.
8 (ECOS-9, SCRSD Recharge Project, pp. 18-19.)

9 This connection to the river happens in the shallow aquifer. This is the same aquifer
10 that I have read testimony would be cut off with walls or pumped down by reductions in river
11 stage caused by the project. (See LAND-35 Errata.) Dr. Steffen Mehl testified for the
12 Sacramento County Water Agency during Part 1 of the hearings. In his initial testimony
13 (SCWA-4) he explained why the groundwater modeling used by Petitioners was inadequate.
14 In his sur-rebuttal testimony (SCWA-200), he performed a qualitative analysis of stream loss
15 effects using Alternative 1B that demonstrated a potential adverse effect on stream loss to the
16 South American Subbasin during CWF operations. As part of that analysis, he indicated that
17 maximum differences in the river's hydraulic head could be up to 40 feet. (SCWA-200.)

18 This raises question of whether reduced groundwater recharge from the river could over
19 time substantively alter the contours of the Elk Grove cone of depression, potentially
20 undercutting efforts to recharge the groundwater basin and restore riparian habitat in the lower
21 Cosumnes River. (See ECOS-9.) My concern is that those actions will make the existing
22 groundwater problems even worse for the wetlands, their birds and their trees. The same
23 problems for the ecosystem would happen if the Sacramento River level starts dropping, as
24 that is the water that is sustaining those habitats now and if they get worse would significantly
25 harm the critical regional conservation efforts we have spent so much time and energy
26 protecting.

27 We submit that this would constitute an additional unreasonable impact and be contrary
28 to the public interest. The State Water Board should require additional analysis to fully

1 understand the effects of the new diversions on reduced groundwater recharge from the river
 2 before approving any of the requested permit modifications.

3 **Truck Traffic**

4 The construction of the intake structures, forebay and tunnels would occur over a 12-
 5 year estimated construction period (LAND-207, MWD Program Schedule, July 2017). The
 6 BDCP Construction Traffic Impact Analysis Administrative Draft Report (January 2016)
 7 quantifies the hourly trip volumes for roadway segments throughout the Delta. Appendix 19A,
 8 Attachment E of the 2016 FEIR/S presents graphs depicting these traffic levels. (SWRCB-
 9 102.) The fact that the difference between baseline traffic and project plus baseline traffic for
 10 all segments remains constant throughout the day (6 a.m. to 7 p.m.) leads to the conclusion
 11 that the vehicles will be trucks. The table reveals that the project will generate constant hourly
 12 increases in traffic on Sacramento and Yolo County Road segments at four threshold levels:

13	620 trucks/hr	10.3 trucks/min	one truck every 5 seconds
14	405-10 trucks/hr	6.8 trucks/min	one truck every 9 seconds
15	230 trucks/hr	3.8 trucks/min	one truck every 16 seconds
16	110-20 trucks/hr	1.8 trucks/min	one truck every 30 seconds
17	45 trucks/hr	0.8 trucks/min	one truck every 80 seconds

18 The figure provided in ECOS-10 identifies those roadway segments in Sacramento
 19 County and immediately adjacent counties by the above threshold levels. (See also LAND-
 20 122, FEIR/S, Figure 19-2a.)

21 To put those numbers in perspective, consider how this would impact Hood-Franklin
 22 Road, along which is located the visitor center for the Stone Lakes NWR. In 2014, the annual
 23 average daily traffic along Hood-Franklin Road was 2,137 vehicles, of which just 27 or 1.3%
 24 were four or five plus axle trucks. (See also DWR-573, p. 165 [2014 Annual Average Daily
 25 Truck Traffic on the California State Highway System]). Hood-Franklin is in the highest
 26 category of projected truck traffic for the Delta Tunnels project (620 vehicles/hour).

27 Conservatively assuming that 80% of the hourly projected traffic for Hood-Franklin comprises 4
 28

1 and 5 axle trucks, the average daily truck traffic over the 13 hours of project operation rises to
 2 6,448, and the percentage of big rig traffic along that road will rise from 1.3% to 63.5%.

3 We have not been able to identify the number of anticipated days that truck traffic would
 4 approach the above volumes. We requested that information during the CEQA/NEPA review
 5 process but it was not provided (SWRCB-102, FEIR/S Comments and Responses to
 6 Comments, Comment letter 1562, p. 20). Lacking any information to the contrary, we must
 7 conclude that roadway segments will sustain volumes approximating the above levels for a
 8 substantial portion of the 12-year construction period.

9 Roads with high traffic volumes reduce landscape connectivity, which affect wildlife
 10 populations in the following ways:

- 11 1. Roads and traffic limit the regular movement of animals to different habitats (e.g.,
 12 wetland to grassland) to meet daily, seasonal, and basic biological needs such as
 13 reproduction, feeding and sheltering.
- 14 2. Roads and traffic affect use of habitats adjacent to roadways with some species
 15 having a higher degree of aversion to traffic and associated noise.
- 16 3. Roads and traffic limit the ability for areas to be recolonized, and ability of young to
 17 find and establish new territories.
- 18 4. Roads and traffic increase wildlife mortality due to collisions, which can affect
 19 reproduction success. At sufficiently high rates of mortality, areas become
 20 population sinks, which can then negatively affect regional populations.

21 The visitor experience at Stone Lakes NWR would also be impacted by the high volume
 22 of truck traffic on Hood Franklin Road. In 2010, the U.S. Fish and Wildlife Service constructed
 23 a visitor station behind the office on Hood Franklin Road. This area is now used by over
 24 30,000 visitors annually that come for a quiet experience to explore the restored wetlands,
 25 riparian and grassland habitats and associated wildlife. Over 2,000 school children also visit
 26 this area to experience nature and take part in the Refuge's environmental education programs
 27 with hands on learning.

1 The Project lead agencies have focused their mitigation on those roadway segments
2 that would exceed Level of Service C, with scant attention to the significant increase of truck
3 traffic on rural roadways. Transportation Mitigation Measure 1a requires Delta Tunnels
4 proponents to develop traffic management plans, which address steps to mitigate traffic
5 impacts on wildlife and on local residents. (SWRCB-111, MMRP, pp. 2-8~~67~~ to 2-94.) The
6 measure includes a laundry list of potential traffic mitigation measures, including some
7 addressed specifically to Stone Lakes NWR in response to Friends' comments. (SWRCB-102,
8 FEIR/S, pp. 19-281.)

9 This measure notwithstanding, the fact remains that whatever traffic mitigation does
10 come out of the Transportation Management Plan process, even if fully enforced, would still
11 not significantly mitigate the impact of up to 10 semi-tractor trailer trucks every minute
12 travelling down the rural roads of the North Delta and Sacramento and adjacent counties—all
13 day, day in and day out, for many, many months on end. The magnitude of heavy duty truck
14 traffic is an additional consideration among the many unreasonable impacts of the Delta
15 Tunnels project on wildlife.

16 **C. Ensuring Implementation of Environmental Commitments**

17 During the above-mentioned meetings between DWR, ICF International, Friends of
18 Stone Lakes NWR and Environmental Council of Sacramento, we reached agreement
19 regarding several specific conservation measures applicable to Greater Sandhill Cranes.
20 Some of these measures are included in the current Delta Tunnels project Alternative 4A in
21 Tables 5-1 and 5-2 of the Mitigation Monitoring and Reporting Program ("MMRP") document of
22 the FEIR/S (SWRCB-1~~0211~~, FEIR/SMMRP, pp. 5-1 to 5-5). (~~See also SWRCB-111.~~)
23 Implementation of these measures is particularly important to us, but they are just one part of a
24 much larger conservation commitment associated with Petitioners' request.

25 Altogether, the Environmental Commitments represent a significant effort to protect
26 13,340 acres and restore 2,496 acres. It is important to recognize that these commitments
27 substitute for specific mitigation requirements that would otherwise be applicable in their
28 absence. There are no mitigation measures for the loss of listed species habitat in the FEIR/S.

1 Instead, using loss of Greater Sandhill Crane foraging habitat as an example, the CEQA
2 conclusion is:

3 The effects on greater sandhill crane habitat under Alternative 4A would
4 represent an adverse effect as a result of habitat modification of a special-status
5 species in the absence of other Environmental Commitments, Resource
6 Restoration and Performance Principles GSC1-GSC4, and AMMs. However, the
7 project proponents have committed to habitat protection, restoration,
management, and enhancement associated with Environmental Commitment 3
and Environmental Commitment 10 that are greater than the mitigation ratios
described above.... Therefore, Alternative 4A would have a less-than-significant
impact on greater sandhill cranes under CEQA.

8 (SWRCB-102, FEIR/S, p. 12-35~~34~~9.) Put simply, the Environmental Commitments
9 represented in Tables 5-1 and 5-2 of the document are *the* mitigation for habitat loss
10 associated with the project.

11 To my knowledge DWR has provided no information as to how and when the habitat
12 mitigation commitments will be met. The accompanying text to Tables 5-1 and 5-2 in the
13 MMRP provides only that DWR will prepare a management plan for each listed species habitat
14 restoration and protection site. (SWRCB-10~~211~~, FEIR/SMMRP, p. 5-~~56~~.) These plans would
15 presumably not be triggered until each of the required sites has been secured for restoration.

16 The extent of the commitment is even vague. Table 5-1 sets upper limits only for
17 restoration commitments (up to 251 acres of Riparian Natural Community Restoration, for
18 example). There is no minimum commitment—zero acres of riparian habitat restored could be
19 argued to be consistent with the commitment as written.

20 Also, the project encompasses the entire Delta, yet the primary habitat impacts are
21 relatively restricted to the North Delta, the Franks Tract area and in proximity to the tunnel
22 alignment. There are no assurances that project mitigation will occur where the impact is
23 greatest. Also with no BDCP, there is no requirement that the mitigation occur in the Project
24 Area. (SWRCB-102, FEIR/S, p. 3-58.) This is of particular concern to those of us who have
25 worked hard to protect habitat in the Sacramento Region. We seek assurances that the
26 environmental commitments will be met in proximity to the areas subject to habitat loss, and
27 without the arbitrary constraint of the Delta boundary.

1 I have every reason to believe that there will be substantial resistance to fulfilling these
2 commitments. The costs of this acquisition and restoration commitment will be substantial.
3 There is already substantial resistance to paying for the tunnels themselves and DWR is
4 looking at ways to scale back and change the project. (See LAND-125 ["If Jerry Brown can't
5 sell California on two Delta tunnels, would just one fly?", Dale Kasler, Sacramento Bee,
6 November 7, 2017].) Failure to follow through with implementing the resource protection and
7 restoration commitment of the project would result in more than an unreasonable impact
8 associated with the State Board's approval of the Petition. It would be a breach of faith in the
9 public trust that large public projects will responsibly mitigate their quite significant impacts.

10 We urge that, if the Board approves the Petitioners' request, the Board do so only with
11 conditions that obligate Petitioners to:

- 12 1. Mitigate to the full extent the acreage commitments in Tables 5-1 and 5-2 of the
13 MMRP (SWRCB-111);
- 14 2. Develop within 18 months, in consultation with state, federal and other wildlife
15 management entities, an implementation plan that identifies priority areas and
16 timelines for acquiring fee title/easements and for restoration;
- 17 3. Provide habitat protection and restoration in proximity to the location of the impact;
- 18 4. Complete acquisition no later than 10 years and restoration projects no later than 20
19 years from the date of Board approval; and
- 20 5. Establish and meet interim progress benchmarks.

21 Even if these conditions were imposed, however, the project would not be in the public interest
22 due to its unreasonable impacts on fish and wildlife.

23 * * *

24 Executed on the 30th day of November, 2017, at Sacramento, California

25 
26 Robert Burness
27

1 **REFERENCES**

2 Figure 3-38, Preserve Planning Unit 6, from Chapter 3 of the February 2017 Draft South
3 Sacramento Habitat Conservation Plan [ECOS-3]

4 Johnson, Michelaina. 2017. Cosumnes River Provides Model for Floodplain Restoration in
5 California. News Deeply/Water Deeply [ECOS-4]

6 County of Sacramento et al. Draft South Sacramento Habitat Conservation Plan, Chapters 1, 3
7 and 7. February 2017 [SOSC-14]

8 Figure 7-4, Existing Preserve and SSHCP Planned Hardline Reserves, from Chapter 7 of the
9 February 2017 Draft South Sacramento Habitat Conservation Plan [ECOS-6]

10 Figure 3-1, Spring 2003 Groundwater Elevation Contours, from Section 3 of the February 2005
11 Sacramento County Water Agency Zone 40 Water Supply Master Plan. (Excerpt of
12 DWR-804) [ECOS-7]

13 CDFW, Map of North Delta Essential Connectivity Areas [ECOS-8]

14 SCRSD, South Sacramento County Agriculture and Habitat Lands Recycled Water,
15 Groundwater Storage, and Conjunctive Use Program: Conceptual Ecological Plan &
16 Ecosystem Benefits. 2017 [ECOS-9]

17 Map of Roadway Segments in the North Delta Identifying Truck Volume per Minute for Delta
18 Tunnels Project Construction (FEIR/S, Fig. 19-2a) [ECOS-10]